

**ABSTRACT OF THE DISCLOSURE**

There is disclosed a process of treating or alleviating the symptoms of pathological conditions in which bone density is decreased, which comprises inhibiting, in a mammalian patient suffering from such a condition, the formation in vivo of a tertiary complex of IL-11, its cell surface membrane receptor and the cell surface glycoprotein gp130. Examples of such substances are recombinant soluble IL-11 receptor mutants modified, as compared with native IL-11 receptor, at their gp130 binding site, and peptides which can interact with IL-11. The process of the invention not only inhibits bone resorption and hence bone loss, but also increases the process of bone formation to increase bone density.